

**Notice of Allowability**

Application No.

09/872,271

Examiner

Lawrence B. Williams

Applicant(s)

PRATER, JAMES S.

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 04 December 2006.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The instant application discloses a method of preventing saturation of an analog to digital converter by an input signal that contains both a baseband signal component and a blocker signal component. A search of prior art records has failed to teach or suggest alone or in combination a method of preventing saturation of an analog to digital converter by an input signal that contains both a baseband signal component and a blocker signal component comprising:

"oversampling said input signal; separating said blocker signal component from said input signal; detecting amplitude of said blocker signal component; separating said baseband signal component from said input signal; adjusting amplitude of said baseband signal component based upon said amplitude of said blocker signal component prior to application of said baseband signal component to a modem that controls the gain of a wireless receiver circuit so that said gain maintains said input signal in a range that prevents saturation of said wireless receiver circuit" as disclosed in claim 1.

Nor does the prior art teach or suggest alone or in combination a "a method of actively filtering an input signal of an analog to digital converter circuit that may contain both a baseband signal component and a blocker signal component comprising: detecting said blocker signal component in said input signal; generating a control signal upon detection of said blocker signal component; applying an active filter to said input signal in response to said control signal whenever said blocker signal component is detected in said input signal so that power consumption of a receiver circuit is minimized, said active filter being integrated into a receiver circuit" as disclosed in claim 3.

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Nor does the prior art teach or suggest alone or in combination “a method of adjusting the dynamic range of a sampling circuit having a sample rate in a wireless receiver circuit to increase detection of a baseband signal component in an input signal that contains a baseband signal component and a blocker signal component comprising: separating said blocker signal component from said input signal, detecting said blocker signal component in said input signal; adjusting said sampling rate of said sampling circuit based upon the presence of said blocker signal component in said input signal such that said dynamic range of said sampling circuit increases whenever said blocker signal component is present” as disclosed in claim 7.

Nor does the prior art teach or suggest alone or in combination, “a method of adjusting the dynamic range of a sampling circuit in a wireless receiver circuit to increase detection of a baseband signal in an input signal that may contain a baseband signal and blocker signal comprising: separating said blocker signal component from said input signal; detecting said blocker signal component in said input signal; adjusting an order of operation of said sampling circuit based upon the presence of said blocker signal component in said input signal such that said dynamic range of said sampling circuit increases whenever said blocker signal is present” as disclosed in claim 11.

Nor does the prior art teach or suggest alone or in combination, “a wireless receiver circuit that automatically adjusts the gain of an input signal that contains both a baseband signal component and a blocker signal component to prevent saturation of receiver circuit comprising: modem having a modem input that receives said baseband signal component and generates a gain control signal that varies in accordance with the amplitude of said baseband signal; a variable gain control amplifier that controls the gain of said input signal in accordance with

amplitude of said gain control signal; a blocker signal detector that determines the amplitude of said blocker signal component of said input signal and generates a digital level shifter control signal; a digital level shifter that shifts said amplitude of said baseband signal in accordance with said digital level shifter control signal so that said amplitude of said baseband signal that is applied to said modem is within a predetermined input range of said modem” as disclosed in claim 15.

Nor does the prior art teach or suggest alone or in combination, “in an analog to digital converter circuit, a method of ensuring detection of a baseband signal in an input signal that contains both a baseband signal component and a blocker signal component comprising: oversampling said input signal; separating said blocker signal component from said input signal; detecting amplitude of said blocker signal component; separating said baseband signal component from said input signal; adjusting amplitude of said baseband signal component to ensure proper detection of said baseband signal component while maintaining gain of said input signal in a range that prevents saturation of a wireless receiver circuit” as disclosed in claim 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

## **CONCLUSION**

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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a.) Tsividis et al. discloses in US Patent 6,873,205 B1 Active Continuous-Time Filter With Increased Dynamic Range In The Presence Of Blocker Signals.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

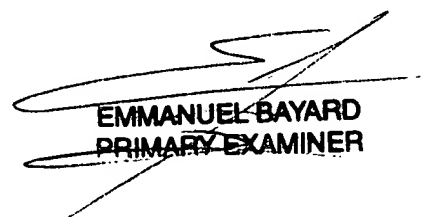
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams



lbw

February 10, 2007



EMMANUEL BAYARD  
PRIMARY EXAMINER